**I claim:**

1. A prosthetic knee mechanism, the knee comprising:

an upper joint member;

a lower joint member;

a linking assembly disposed between the upper joint member and the lower joint member; and

a mechanical braking mechanism.

2. The knee mechanism of Claim 1 further comprising:

an upper joint member wherein the upper joint member forms a polycentric design.

3. The knee mechanism of Claim 1 wherein said mechanical braking mechanism augments friction on the polycentric design thereby increasing stability during use.

4. The knee mechanism of Claim 1 wherein the combination of a polycentric design and the mechanical braking mechanism effects geometry of the knee mechanism and further wherein said combination increases stability during use.

5. A prosthetic knee mechanism, said knee mechanism comprising:

an upper joint member;

a lower joint member;

a linking assembly disposed between the upper joint member and the lower joint member; and

a cam system to control the swing of the foot and shank.

6. The knee mechanism of Claim 5 further comprising:

a shaft contained within the cam system wherein said shaft moves within the cam system during knee flexion.

7. The knee mechanism of Claim 5 further comprising:

a shank attached to the cam wherein said shank is attached to a piston.

8. The knee mechanism of Claim 5 further comprising:

a piston contained within the cam system wherein the piston causes fluid to be displaced from a first side of said piston to a second side of said piston.

9. The knee mechanism of Claim 5 further comprising:

a piston contained within the cam system wherein the piston causes fluid to be displaced from a first side of the piston to a second side of said piston through an orifice and further wherein the fluid resistance to flowing through the orifice causes a damping force.

10. The knee mechanism of Claim 5 further comprising:

a fluid within said cam system wherein said fluid may be completely passed through an orifice in the cam system wherein said amount of fluid passed through the orifice to effect the damping, speed and swing of the mechanism during use.

11. The knee mechanism of Claim 5 wherein said cam

mechanism design may be altered to create alternative damping amounts and a plurality of speed and swing movements by a user.

12. The knee mechanism of Claim 5 wherein said cam system can create different amounts of damping at different stages of the gait cycle.

13. A prosthetic knee mechanism, said knee mechanism comprising:

an upper joint member;

a lower joint member;

a linking assembly disposed between the upper joint member and the lower joint member; and

a posterior linkage assembly.

14. The knee mechanism of Claim 13 wherein said posterior linkage assembly is disposed between said upper joint member and said lower joint member.

15. The knee mechanism of Claim 13 wherein said posterior linkage member is shortened during used by an individual.

16. The knee mechanism of Claim 13 wherein said posterior linkage member has elastic deformation characteristics.

17. The knee mechanism of Claim 13 wherein said posterior linkage member is comprised of a high tensile metal.

18. The knee mechanism of Claim 13 wherein said posterior linkage member is comprised of a composite material.

19. The knee mechanism of Claim 13 wherein said posterior linkage member is comprised of a plastic material.

20. A prosthetic knee mechanism, the knee mechanism comprising:

an upper joint member;

a lower joint member;

a linking assembly disposed between the upper joint member and the lower joint member;

a mechanical braking system;

a cam system mechanism to control foot and shank speed; and

a posterior linkage system to control knee flexion at heel strike.

21. The knee mechanism of Claim 20 further comprising: a shaft contained within the cam system wherein said shaft moves within the cam system during knee flexion.

22. The knee mechanism of Claim 20 further comprising: a shank attached to the cam wherein said shank is attached to a piston.

23. The knee mechanism of Claim 20 further comprising: a piston contained within the cam system wherein the piston causes fluid to be displaced from a first side of said piston to a second side of said piston.

24. The knee mechanism of Claim 20 further comprising:

a piston contained within the cam system wherein the piston causes fluid to be displaced from a first side of the piston to a second side of said piston through an orifice and further wherein the fluid resistance to flowing through the orifice causes a damping force.

25. The knee mechanism of Claim 20 further comprising: a fluid within said cam system wherein said fluid may be completely passed through an orifice in the cam system wherein said amount of fluid passed through the orifice to effect the damping, speed and swing of the mechanism during use.

26. The knee mechanism of Claim 20 wherein said cam mechanism design may be altered to create alternative damping amounts and a plurality of speed and swing movements by a user.

27. The knee mechanism of Claim 20 wherein said cam system can create different amounts of damping at different stages of the gait cycle.

28. The knee mechanism of Claim 20 wherein said posterior linkage assembly is disposed between said upper joint member and said lower joint member.

29. The knee mechanism of Claim 20 wherein said posterior linkage member is shortened during used by an individual.

30. The knee mechanism of Claim 20 wherein said posterior linkage member has elastic deformation characteristics.

31. The knee mechanism of Claim 20 wherein said posterior linkage member is comprised of a high tensile metal.

32. The knee mechanism of Claim 20 wherein said posterior linkage member is comprised of a composite material.

33. The knee mechanism of Claim 20 wherein said posterior linkage member is comprised of a plastic material.

34. The knee mechanism of Claim 20 further comprising: an upper joint member wherein the upper joint member forms a polycentric design.

35. The knee mechanism of Claim 20 wherein said mechanical braking mechanism augments friction on the polycentric design thereby increasing stability during use.

36. The knee mechanism of Claim 20 wherein the combination of a polycentric design and the mechanical braking mechanism effects geometry of the knee mechanism and further wherein said combination increases stability during use.